Paper No. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte THOMAS G. CANTRELL, SEBNEM JAJI,
AMAL A. SHAHEEN and
RICHARD B. WARD

Appeal No. 1997-1184
Application 08/206,706

ON BRIEF

Before HAIRSTON, FLEMING and FRAHM, Administrative Patent Judges.

HAIRSTON, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1, 3 through 6, 8 and 10 through 15.

The disclosed invention relates to a method and apparatus for managing a file system cache in a distributed file system.

Claim 1 is illustrative of the claimed invention, and it reads as follows:

1. A method of managing a file system cache in a client computer system operating under a first operating system, the method comprising the steps of:

intercepting operating system requests for a file system object in a distributed file system;

transforming said requests to remove operating system dependent syntax;

testing a cache in a storage means of said client for the presence of file system object data based on said transformed request;

satisfying said transformed request for said file system object data, if cache data exists[;]

testing to determine whether a connection exists to said distributed file system;

generating a request for said file system object from said distributed file system, without regard to distributed file system protocol, if no cache data exists and there is a connection;

transmitting said request to said distributed file system; and

rejecting said file system object request, if no cache data exists and there is no connection.

The references relied on by the examiner are:

Huston et al. (Huston), "Disconnected Operation for AFS," Proceedings of the USENIX Mobile and Location-Independent Computing Symposium, 1-10 (August 2-3, 1993).

Rao et al. (Rao), "Accessing Files in an Internet: The Jade File System," IEEE Transactions on Software Engineering, no. 6,
613-624 (June 19, 1993).

Claims 1, 3 through 6, 8 and 10 through 15 stand rejected under 35 U.S.C. § 103 as being unpatentable over Huston in view of Rao.

Reference is made to the brief and the answer for the respective positions of the appellants and the examiner.

OPINION

The obviousness rejection of claims 1, 3 through 6, 8 and 10 through 15 is reversed.

According to the examiner (Answer, pages 3 through 5), Huston discloses all of the claimed subject matter except for the step of transforming the request to remove operating system dependent syntax. Rao states that "it is possible to access the services provided by a physical file system without regard to the machine type or the operating system" (page 614, left column). Based upon this disclosure in Rao, the examiner is of the opinion that "it would have been obvious to one of ordinary skill in the art [at] the time [the] invention was made to include the step of transforming [a] request to remove

operating system dependent syntax . . . in the method for managing file system cache in a client computer system disclosed by Huston" (Answer, pages 5 and 6).

Appellants indicate that Huston "is generally teaching that implementations designed for use in a distributed file system, do not work well, if at all, when they are applied to disconnected operation," and that the focus of the Huston paper is to "[m]ake such implementations work in the disconnected environment" (Brief, pages 5 and 6). Appellants go on to explain that Rao also discloses a distributed file system called Jade that is used in connection with the Internet (Brief, page 6). Although Rao is concerned with a distributed file system for networked computers, appellants explain that the computers are not disconnected computers (Brief, page 6). Appellants further note that "both references are dependent upon dealing with the distributed file system protocol, which the present invention is not" (Brief, pages 6 and 7). Appellants then argue (Brief, page 7):

> Given these passages and the court's guidance, one of ordinary skill in the art would not find it obvious to combine two references that teach away

> from each other to produce the claimed invention. In addition, the Huston, et al. reference is system protocol dependent, which the present invention is not, thus combining Huston, et al. with the teachings of Rao, et al. does not render the present invention obvious.

We agree with appellants' arguments. The examiner's line of reasoning does not convince us of the obviousness of the claimed invention because the statement in Rao that access to a physical file system can be made without regard to the operating system is quite different from removing "operating system dependent syntax" from a request (claims 1 and 3 through 6). Even if we assume for the sake of argument that it would have been obvious to one of ordinary skill in the art to combine the teachings of Huston and Rao, the combined teachings neither teach nor would have suggested file system object data entries that are independent of any file system object name, and that are referenceable by multiple file system object parents each having different naming syntax (claims 8 and 10 through 15).

DECISION

The decision of the examiner rejecting claims 1, 3 through 6, 8 and 10 through 15 under 35 U.S.C. § 103 is

reversed.

REVERSED

KENNETH W. HAIRSTON Administrative Patent Judge	)	
MICHAEL R. FLEMING Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
ERIC FRAHM Administrative Patent Judge	)	

KWH:hh

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